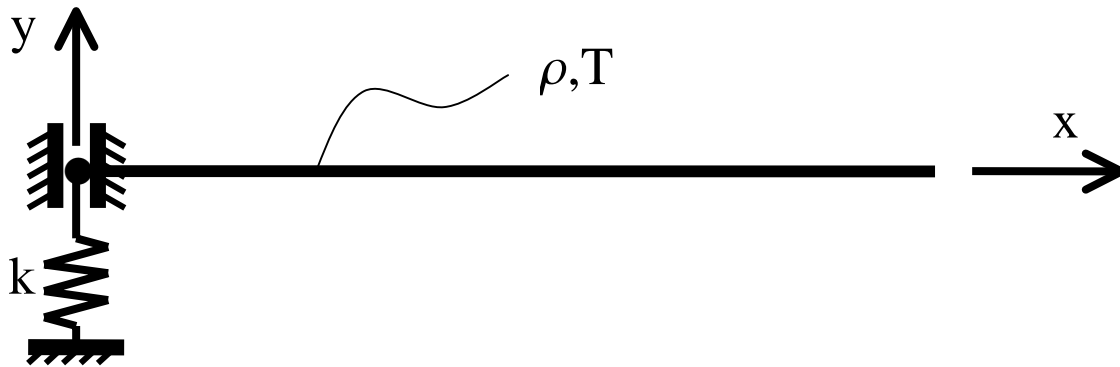


SP 12.1 A semi-infinite string with tension T and mass per unit length ρ is supported by a spring at its left end.

- Determine the reflected wave due to an incident wave given by: $y(x,t) = Y_0 \cos \gamma(x + ct)$.
- What happens to the reflected wave if $k / \gamma T \rightarrow \infty$.
- What happens to the reflected wave if $k / \gamma T \rightarrow 0$.



SP 13.1 A tensioned string is fixed at one end and spring-supported at its other end.

- Determine the first three natural frequencies and modes of vibration for the string shown with $k=T/4L$.
- Normalize the modes.

